CONSTRUCTION PROCEDURES HANDBOOK

SECTION VI	SUBSECTION Q	DATE
CONSTRUCTION OPERATIONS	**Vertical Under-clearances and Lane Width Restrictions**	08/30/2013

The Department maintains an inventory that records the vertical under-clearance of all structures (bridges and overhead signs). It is important to ensure that the minimum under-clearances are obtained to keep vehicles from hitting our structures, but it is also important to ensure that the Department has an accurate record of vertical under-clearances, because this information is used to direct over-sized vehicles along the highway system. Similarly, information about lane width restrictions for single-lane-each-direction highways is also used to direct over-sized vehicles.

For this purpose, the following procedure is provided:

I Vertical Under-clearance

A. Pre-Construction Review

1) The RE will review the project plans to determine if the project will reduce the vertical under-clearance (VUC) of a roadway by more than 6" for structures having an existing VUC of more than 15'- 0", or more than 3" for structures having an existing VUC of less than 15'-0". The RE should be able to obtain this information from simply reviewing the plans. It is not intended for the RE verify existing clearances. The RE should consider the following:
   i. Are new structures (bridges or overhead signs) being constructed that will result in a VUC where none existed previously?
   ii. Are changes planned to existing structures that will change the VUC? (e.g. changes in the height of a structure, adding a new sign)
   iii. Are there changes to the road grade that will affect the VUC of a structure overhead?
   iv. Are there changes in VUC due to temporary structures?
   v. Are there changes in staging of shifting of traffic lanes that change the VUC?
   vi. Do any of the structures have VUC that are less than the posted clearance or less than 14'-6"?

NOTE: N.J.S.A. 27:5G-1 through 4, requires that every road having a VUC of less than 14'-6" have a minimum clearance marked or posted on the structures. If changes result in a VUC of less than 14'-6" to a lane opened to traffic, the RE will ensure that appropriate signs are posted. In addition, if there are any changes to the VUC for a structure with existing reduced minimum clearance signs, the RE will ensure that the signs are appropriately changed.

B. Changes during Construction

1) If construction will reduce an existing VUC by more than 6" for structures having an existing VUC of more than 15'- 0", or more than 3" for structures having an existing VUC of less than 15'-0", the RE will notify the TIC (Traffic Interference Coordinator) via e-mail prior to performing the work. If the work is specific to a certain stage, the RE will notify the TIC of the planned change to the VUC with the Advanced Notice for Traffic Interference for that stage. If the change is not specific to a particular stage, the RE will notify the TIC of the planned change to VUC with the Advanced Notice for Traffic Interference at the start of the project.

2) If new structures (temporary or permanent) are constructed, prior to opening the roadway to traffic, the RE will notify the TIC (Traffic Interference Coordinator) via e-mail that new VUC's are established. If the structure is being constructed over roadways open to traffic, the RE will notify the TIC of the planned VUC prior to performing the work.

3) If a change to the road grade reduces an existing VUC by more than 6" (or more than 3" for structures having an existing VUC of less than 15'- 0"), the RE will inform the TIC of the planned VUC. If the work is specific to a certain stage, the RE will notify the TIC of the planned change to the VUC with the Advanced Notice for Traffic Interference for that stage. If the change is not specific to a particular stage, the RE will notify the TIC of the planned change to the VUC with the Advanced Notice for Traffic Interference at the start of the project.

4) When notifying the TIC of a change in VUC, provide the following information:
   i. Project Name
   ii. Structure(s) description
   iii. Structure(s) number
   iv. Roadway with changed VUC
   v. Direction of Roadway (e.g. NB, SB, NB & SB …)

NOTE: Construction operations may affect the VUC of a structure several times during a project. Notices of changes in VUC during construction are not required every time a beam is placed, or a section of roadway is milled or paved. Rather, a single notice is requested for the project, unless the change is stage specific.

C. Measuring VUC

1) The RE will obtain VUC measurements during stage construction to avoid having additional lane closures for this sole purpose.

2) Measurements of VUC are to be made to the nearest 1/10 of a LF, and taken at each lane line, shoulder line, and curb line/edge of pavement line beneath the structure. For Bridge structures, measurements must be taken beneath each fascia beam.

D. As-built of VUC - Vertical Under-clearance Report

1) For all projects that have structures having a change in the VUC (even when less than 6"), after the completion of the project, the RE will submit a Vertical Under-clearance Report, Form DC-31 to Structural Evaluation and Freight Services via

e-mail to Structural.Evaluation@dot.state.nj.us and Superload.Permits@dot.state.nj.us. Sample DC-31 form (Attachment A) also attached.

2) Thus, the report is required, whenever paving under a structure or placing new beams or overhead signs.

3) The RE will provide a sketch detailing the road configuration, lane numbering and locations of measurement with the Vertical Under-clearance Report.

II Lane Width Restrictions

A. Changes during Construction

1) If construction will reduce the number of available lanes to one lane in any direction, or if it will reduce the lane width of an existing one lane each direction highway, the RE will notify the TIC via e-mail prior to performing the work. If the work is specific to a certain stage, the RE will notify the TIC of the planned lane width restriction with the Advanced Notice for Traffic Interference for that stage. If the change is not specific to a particular stage, the RE will notify the TIC of the planned change to VUC with the Advanced Notice for Traffic Interference at the start of the project.

2) When notifying the TIC of a change in a lane width restriction, provide the following information:
   i. Project Name
   ii. Roadway/ Direction of Roadway (e.g. NB, SB, NB & SB …)
   iii. Mile post limits of lane width restriction
   iv. Lane Width include lane width and shoulder width

3) When a lane width restriction is removed, notify the TIC of the change.

NOTE: Notices of lane width restrictions are not required for every temporary lane closure. Rather, a single notice is requested for the project, unless the change is stage specific.

DC-31 (6/2010)

SAMPLE A

New Jersey Department of Transportation
Vertical Underclearence As-Built Report

Project Name: Rt. 80 Roadway Improvements Contract "B"

DP File No.: 10555

Prepared By: _____ (Name) _____ (Signature) Date: 6/12/2010

Resident Engineer: _____ (Name) _____ (Signature) Date: 6/12/2010 Phone No.: 609-530-0001

				Vertical Under Clearance (in feet)							
Structure No.	Description	Roadway under Structure	Travel Direction	Left Curb/Edge	Left Shoulder	Lane Line 1	Lane Line 2	Lane Line 3	Lane Line 4	Right Shoulder	Right Curb/Edge
1234567	Ramp A over Rt. 80	Rt. 80 Express	EB	17.8	n/a	17.8	17.6	n/a	n/a	17.6	17.6
1234567	Ramp A over Rt. 80	Rt. 80 Express	WB	17.8	n/a	17.8	17.9	n/a	n/a	17.9	17.9
1234987	Overhead Sign Structure	Rt. 80 Local	EB	19.3	19.2	19.0	n/a	n/a	n/a	n/a	n/a
8765432	Oak Rd over Rt. 80	Rt. 80 Local	EB	16.6	16.6	16.6	16.7	16.8	n/a	16.8	16.8
8765432	Oak Rd over Rt. 80	Rt. 80 Express	EB	16.4	16.5	16.5	16.6	n/a	n/a	n/a	n/a
8765432	Oak Rd over Rt. 80	Rt. 80 Local	WB	16.6	16.6	16.6	16.6	16.8	n/a	16.7	16.7
8765432	Oak Rd over Rt. 80	Rt. 80 Express	WB	16.6	16.6	16.8	16.8	n/a	n/a	n/a	n/a
5432123	Rt. 80 over CR 600	CR 600	NB	18.3	18.3	18.2	n/a	n/a	n/a	n/a	n/a
5432123	Rt. 80 over CR 600	CR 600	SB	18.3	18.3	18.1	n/a	n/a	n/a	n/a	n/a

With this report, provide a sketch showing the road configuration/lane line numbering and location of measurements for each structure